LONG-DISTANCE CYCLING ROUTES: ECONOMIC IMPACTS, BEST PRACTICES, AND MARKETING STRATEGIES

INSTITUTE OF OUTDOOR RECREATION AND TOURISM
UTAH STATE UNIVERSITY

Elizabeth Depew

Jordan W. Smith, PhD

October 29, 2020

abstract

Strategic efforts from state tourism offices and local governments amplify the economic benefits of bicycle tourism and help to define the character and identity of rural communities. We synthesize research on this topic as a guide to the economic benefits that come from bicycle tourism, and offer best practices for developing long distance cycling routes that support bicycle tourism.

Bicycle tourism can contribute significantly to local, regional, and state economies. Strategic marketing and communication efforts from state tourism offices and local governments can amplify the economic benefits of bicycle tourism and help define the character and identity of rural communities.

The purpose of this review is two-fold. First, we synthesize previous research on the economic impacts of bicycle tourism. To our knowledge, all existing economic impact studies on bicycle tourism have been conducted across disparate geographies and at different spatial scales. Our synthesis coalesces previous research, providing local tourism and economic development specialists with a comprehensive guide to what has been done. With this information, we hope these individuals will have a better understanding of the economic benefits that can come from developing bicycle tourism in their communities.

Second, we develop a list of best practices for developing long distance cycling routes and supporting bicycle tourism. These best practices are synthesized from existing literature and supported by peer-reviewed scientific research. The existing literature on how to best develop, sustain, and market long-distance cycling routes is almost exclusively non peer-reviewed articles, although a few theses do exist. We reviewed this literature, synthesizing dominant themes that are supported by current theory and empirical evidence from the scientific literature.

THE ECONOMIC IMPACT OF BICYCLE TOURISM

We've compiled key characteristics of the bicycle tourism routes for which economic impact studies have been conducted in Table 1; the table also presents the economic impact metrics (e.g., value added, employment,

etc.) reported in these studies. There are only a few moderate-distance cycling routes (100 – 500 miles) for which economic impact studies have been conducted. For these, statewide economic contributions range from $18 million for Missouri's Katy Trail to $55.8 million for New York's Erie Canalway Trail. While these contributions may only represent a small fraction of each state's GDP (0.007% for Missouri and 0.003% for New York), they are significant for the predominantly rural portions of each state through which the cycling routes occur. The studies we reviewed also seem to show a large number of jobs generated by bike tourism. The two trails for which the economic impact analyses report a contribution to employment are Great Allegheny Passage (Pennsylvania and Maryland) where 270 jobs

Table 1. Key characteristics of bicycle tourism routes for which economic impact studies have been conducted.

Cycling Route	Length (miles)	Est. Economic Impact[1] ($US)	Jobs Created	Scale of Impact	Year	Reference
Great Allegheny Passage, PA-MD	150	40.0 million	270[2]	Multi-State	2008	Bhattacharya et al., 2019
Washington State Non-motorized Trails	5,052[3]	3.3 million	n/a	State	2019	ECONorthwest, 2020
Erie Canalway Trail, NY	227	55.8 million	731	State	2014	Rails-to-Trails Conservancy, 2018
Utah Non-motorized Trails	N/A	303.9 million (direct sales in bike industries); 60 million (bike tourism)	2,000 (direct sales in bike industries); 1,500 (bike tourism)	State	2015	Urban Design 4 Health, Inc., 2017
Katy Trail, MO	240	18.0 million	N/A	State	2012	Chakraborty, 2019
Spokane River Centennial Trail, WA	40	1.7 million[4]	22	County	2016	ECONorthwest, 2020
Mon River System, WV	48	6.0 million	N/A	Region	2017	Rails-to-Trails Conservancy, 2017
Pike's Peak Trail Systems, CO	N/A	27.9 million	N/A	Region	2014	Steer Davies Gleave, 2015
Columbia River Gorge Trail, OR	78	21.0 million	270	Communities located in CRG	2014	Dean Runyan Associates, 2014
Whitefish Trail, MT	42	1.9 million	68	Town and surrounding areas	2018	Bhattacharya et al., 2019
Murdock Canal Trail, UT	17	3.6 million	234 jobs (construction)	N/A	2017	Urban Design 4 Health, Inc., 2017
Virginia Creeper Trail	35	1.60 million	27	N/A	2014	Lee, 2015

[1] Economic impact = direct + indirect + induced, or not explained unless otherwise noted.
[2] Calculated from the 65 new companies gained from 2007 – 2015. Probably an overestimation to claim that all new businesses were a direct result of the trail.
[3] This is the total non-motorized trail mileage in Washington state (TrailLink, 2020). References only reports the mileage of motorized and non-motorized trails in Washington state (12,000).
[4] Not broken down by users. Approximately 30% of users are bikers.

were created and the aforementioned Erie Canalway Trail (New York) where 731 jobs were created.

We identified six short-distance cycling routes (< 100 miles) for which economic impact studies have been conducted. Across these studies, the total economic contribution of the trails ranged from $1.6 million for the Virginia Creeper Trail (Virginia) to $21 million for the Columbia River Gorge Trail (Washington). Total number of jobs created ranged from 22 for the Spokane River Centennial Trail (Washington) to 270 for the Columbia River Gorge Trail (Washington).

Although the economic impact of urban bike trails is higher in absolute terms, the input from bike trails which pass near or through agricultural, gateway, and rural communities is relatively more impactful. Rural towns do not typically benefit from tourism, and the contribution from bike tourists is a significant addition to local income. In Montana, touring cyclists were found to spend $76 to $104 per day while using a long distance cycling route (Nickerson et al., 2014). In West Virginia, bike tourists near Morgantown who were traveling 50+ miles were found to spend $316 per trip while staying in the area (Rails-to-Trails Conservancy, 2018). As well as being relatively high-spenders, cyclists comprise a substantial proportion of the outdoor recreation and tourism industry. In Oregon, there were 1.2 million trips in 2012 that included bicycle recreation. The average overnight trip lasted 3.6 nights and travel expenditures generated around $400 million and supported 4,600 jobs (Dean Runyan Associates, 2014).

In addition to the jobs created and contributions to the economy, bike trails have a low cost of development and maintenance, and have a high return on investment. Each year, the Murdock Canal Trail (Utah) generates $3.6 million, which is 32 times the $113,000 annual cost of maintenance (Urban Design 4 Health, Inc., 2017). In Pikes Peak (Colorado), each dollar invested in cycling generates 1.8 – 2.7 times the amount in income (Rails-to-Trails Conservancy, 2018). Initial construction of bike trails also costs significantly less than construction of roads. According to an American Road and Transportation Builders Association estimate, constructing a new, two lane road cost $2 – $5 million per mile while construction of a new multi-use trail cost $200,000 – $1 million per mile (Bhattacharya et al., 2019). The relatively low initial costs required for the designation and construction of long-distance cycling routes is

notable in light of the significant economic benefits they generate.

BEST PRACTICES FOR DEVELOPING LONG-DISTANCE CYCLING ROUTES & SUPPORTING BICYCLE TOURISM

Best Practices

From the existing literature, we compiled a list of best practices for developing long distance cycling routes and supporting bicycle tourism. These best practices are not comprehensive, rather they document what tourism and economic development specialists as well as city, county, and regional planners have reported working in the past. We only included best practices that are supported by current peer-review literature on community/rural economic development. This was done in an effort to validate each practice with research-backed evidence.

- **Develop trails that promote multi-day trips.** Overnight visitors spend significantly more than day trip visitors. Consequently, developing routes that promote multi-day trips can lead to increased economic contributions to local communities. Route development should try to connect existing trails to business districts in communities through which trails run (ECONorthwest, 2020). The 2015 national general trail user survey, which received 804 responses across the US, found that 46.2% of bicycle tourists indicated having more local shops would encourage them to make longer trips. The same survey also found that 39.6% of bicycle tourists would take longer trips if they had access to river- or water-based recreational activities at their destination (ECONorthwest, 2020).

- **Adding new and improving existing amenities.** Higher quality trails as well as shopping and lodging experiences attract more visitation, which leads to higher economic benefits (ECONorthwest, 2020). Examples of ways to accomplish this include diversifying local lodging options and providing well-maintained municipal restrooms, potable water, Wi-Fi, bike storage, and bike tools at local parks located along or near cycling routes. Twin Bridges, Minnesota provides an example of where investing in infrastructure to support bicycle tourism can lead to economic returns. In the first summer after opening a cyclist-only campground, the city which has a population of 400, received 250 overnight cyclist campers. The campground fees, along with other cyclist expenditures, generated over $10,000 to the local economy (Lee, 2015).

- **Monitor route usage through trail counters and surveys.** Those involved in route planning and development should include monitoring equipment as an essential capital investment in project costs. Additionally, well-designed visitor use monitoring protocols should be implemented to provide community, regional, and state leaders with an understanding of the volume of use on the route as well as the preferences, perceptions, and spending behaviors of route users (Bergman & Cohen, 2016; Interagency Visitor Use Management Council, 2016).

- **Route planning and management should involve destination marketing organizations, municipal and county economic development specialists, non-profit organizations, and land management agencies.** Many non-profit organizations have resources available to develop, expand, and market bikeways (Camp et al., 2016). Municipal and county developers should be informed of the benefits of bike trails and encouraged to contribute funding to bike tourism marketing. Land management agencies may have suggestions and concerns regarding the environmental impacts of bike trails.

- **Ensure routes are continuous and without trail gaps.** Gaps in existing routes are a significant concern for many cycling tourists. It may hinder both the usage and viability of long-distance cycling routes (Camp et al., 2016). For example, after a bridge was constructed which linked previously unconnected sections of the American Tobacco Trail in Durham, North Carolina, the number of trips taken increased by 113% and an additional $3.7 million was spent annually by trail users. In another example, the closure of the Olentangy Trail (Ohio) for highway construction resulted in an 86% decrease in trail usage (Bhattacharya et al., 2019).

- **Connect cycling routes to local shops and grocery stores.** Economic impacts are higher when cyclists have access to local shops and commercial establishments (Camp et al., 2016). Those involved in route planning and development should ensure there is a safe and well-marked path for bikers to reach shops and that local establishments appear on any cycling-specific maps.

- **Convert abandoned rail corridors into portions of bike trails.** Abandoned rail corridors can be utilized for segments of long-distance cycling routes

(Beierle, 2011). These corridors are often adjacent to, but separated from, highways and interstates; they also often run through or adjacent to cities and towns. Consequently, abandoned trail corridors provide a convenient way for planners to ensure a safe cycling route while simultaneously providing easy access to the cities and towns who stand to benefit economically (Lee, 2015).

- **Provide directions for tourists.** Those involved in route planning and development should provide maps, points of interest, and amenities either online or via brochures to improve cyclists' experience. The use of consistent and easily visible signage and an emphasis on cyclist-specific points of interest can increase cyclist revenues (Beierle, 2011).

- **Encourage local communities to embrace touring cyclists and be courteous on the road.** Cyclist-friendly infrastructure, signage, and a welcoming local culture contribute to cycling tourist's experience, which influences their spending and likeliness to choose to travel in the area (Nickerson et al., 2014).

- **Improve road conditions and bike lane safety.** Rumble strips, debris, potholes, cracks, chip seal, and narrow shoulder width are detrimental to cyclist experience, safety, and trail usage (Beierle, 2011; Lee, 2015; Nickerson et al., 2014). Those involved in route planning and development should include trail maintenance in budgeting plans and communicate with state departments of transportation regarding trail maintenance.

- **Ensure that state, regional, and community departments are involved in developing and applying for U.S Bicycle Route designations and in developing bicycle facilities.** These organizations may have insight into resources available, economic goals for the area, and best practices for development and applications (Beierle, 2011).

Marketing-Specific Best Practices

While the literature is limited with regard to best practices for marketing long-distance cycling routes, what does exist seems to suggest that cycling-specific marketing campaigns can help ensure communities benefit from long-distance cycling routes.

- **Market trails online through multiple outlets.** Cycling-specific webpages should be created and hosted across multiple outlets. Ideal websites on which route information can be shared include: The state tourism office's website; county/city/town sites; land-management agency websites; and local, regional, and non-profit organizations catering to long-distance cyclists. The most engaging webpages include: content that changes seasonally or weekly; compelling photos; trip planning features; clean layouts; links to social media; and lists of local events and sightseeing opportunities (Camp et al., 2016). Online advertising is also important to inform cyclists of amenities close to where they are touring. In response to the 2015 national general trail user survey, 84.2% of respondents stated they found out about businesses or attractions they were visiting in town through the internet and social media (ECONorthwest, 2020).

- **Market attractions near the cycling route which will make the trail more appealing to prospective cycling tourists who are deciding where to plan their bike tours.** Some attractions to advertise include parks, local festivals, historic monuments, points of geological interest, recreation areas, and hidden gems (Lee, 2015).

- **Strategically decide when to begin marketing a trail system.** It is important to begin advertising the route only once it is well established, and local, regional, and state officials have coordinated on how to release information about the route, local amenities, and attractions near the route. Doing so will help ensure cyclists' expectations are in-line with the reality of the route's condition and connectivity as well as their ability to find accommodations and services in communities through which the route runs. The Great Allegheny Passage, for example, waited until two-thirds of the trail was completed before starting marketing (Lee, 2015).

- **Create and complete an assessment tool to establish route readiness.** Those involved in route planning and development should consider evaluating their route for readiness before marketing it as a "destination trail" (Camp et al., 2016). Evaluation tools, such as the Atlantic Canada Trail Association destination trail evaluation (Atlantic Canada Trail Association, n.d.) provide guidance to ensure cycling routes have adequate access points, are designed to the needs and standards of cyclists, and have an adequate and diverse supply of accommodation, lodging, and services in communities through which the routes run.

Table 2. Types of Bicycle Tourists (from Beierle, 2011).

Shoestring Cyclists	**Age:** Young **Daily Spending:** $15-$30 **Daily Mileage:** 75-100 **Preferences:** Low cost camping, hostel and homestay accommodations; grocery stores; public showers
Economy Cyclists	**Age**: Any **Daily Spending:** Avg $50; varied **Preferences:** Varied. Grocery stores, restaurants, cafes, camping, hotels
Comfort Cyclists	**Age:** Older **Daily Spending:** $75-$100 **Daily Milage:** 50-90 Preferences: Hotels, motels, bed & breakfasts, cafes, restaurants, breweries, recreation, entertainment, visitation

- **Identify specific cyclist groups and market to each demographic, focusing on the group most likely to use the trail in question.** Not all long-distance cyclists are the same and consequently, marketing campaigns should be targeted to the type of cycling tourist they want to attract. Beierle (2011) identified three types of cyclists based on their demographic characteristics, riding behavior, and preferences; these types are described in Table 2.

CONCLUSION

The literature we compiled, reviewed, and report on here is consistent in reporting positive and substantive economic benefits from long-distance cycling routes. Cycling routes are relatively inexpensive to plan for and develop, they can directly generate jobs if route construction is needed and they can indirectly support jobs in local communities through the expenditures of cyclists and their support crews. The literature on long-distance cyclists' spending behavior suggests daily spending of up to $104 per day (Nickerson et al., 2014). This spending would be particularly beneficial to agricultural, gateway, and rural communities if they are looking to diversify the activities through which their communities generate tourism revenues. The best practices outlined in this review are meant to serve as a guide for communities, tourism development offices, and state officials who are considering (or are in the process of) adding long-distance cycling routes into their mix of tourism offerings. The best practices are supported by reports from practitioners, consultants, and researchers who have investigated the ways long-distance cycling routes can be used to support cycling tourism. The best practices primarily focus on route planning and maintenance; marketing the route and local attractions are a secondary focus given there is less published on how to do this in a way that maximizes economic returns for local communities. Given the rising popularity of cycling tourism, the economic benefits generated from planning and developing long-distance cyclists routes could significantly contribute to the economies of communities near long cycling routes; the economic impacts can be particularly notable for agricultural, gateway, and rural communities looking to grow their tourism economies.

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